REMARKS

In the Office Action Claims 1-5, 7-11 and 16-17 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0076072 by Cornelisse ("Cornelisse"), claim 1 stands rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 4,934,770 to Anderson et al. ("Anderson") and under 35 U.S.C. §102(e) as anticipated by U.S. Patent Application Publication No. by Goldstein ("Goldstein"). Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Cornelisse in view of U.S. Patent No. 6,195,438 to Yumoto et al. ("Yumoto"). Claims 12-15 and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cornelisse in view of U.S. Patent No. 5,404,315 to Nakano et al. ("Nakano"). Claims 18-24 and 26-29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cornelisse in view of U.S. Patent No. 5,404,315 to Fischer et al. ("Fischer"). Claims 25 and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cornelisse in view of Fischer and further in view of Nakano. Claims 35-39 are new.

The §102 Rejections

Regarding Cornelisse, Applicants respectfully traverse the rejections of claims 1-5, 7-11 and 16-17 for the reason that Cornelisse fails to teach every element of the claims arranged as they are in the claims. A cited prior art reference anticipates a claimed invention under 35 U.S.C. §102 only if every element of the claimed invention is identically shown in the single reference, arranged as they are in the claims. MPEP §2131; *In re Bond*, 910 F.2d 831, 832, 15 USPQ 2d 1566, 1567 (Fed. Cir. 1990). Cornelisse does not teach, *inter alia*, a system volume control for setting system gain wherein the system volume control and operation of a compander are controlled by a transform engine.

In the Office Action, Cornelisse is said to teach the required at least one transform engine responsive to the at least one user-set parameter for controlling operation of the compander and setting the system volume control. However, Cornelisse does not teach such transform engine. Cornelisse expressly teaches that "[a] gain value 126-1, 126-2, . . . 126-N for each of the frequency domain signals 44 is calculated or determined in block 122 based on the input level signals 120 and the LNC signal 110." Cornelisse, para. [0050]. Assuming *arguendo* that such gain values could be said to provide a compander in Cornelisse, the reference nevertheless lacks a system volume control for setting system gain where the system volume control and compander are controlled by one or more transform engine. Therefore, Cornelisse does not teach every element of the claims and the rejections should be withdrawn.

Anderson does not teach all elements of the claims, arranged as they are in the claims. The Office Action asserts that Anderson's current controlled amplifier 32 is a compander. However, Anderson states that element 24 is a compander. Anderson also states that "compander 24 includes input current controlled amplifier 46, a "compand" detector 48, a "compand" filter 50, and an input current controlled amplifier control 52 to vary the gain of the current controlled amplifier 46." Anderson, col.16, lines 51-57. Thus, the Office Action improperly mischaracterizes the operation of current controlled amplifier 32 in a manner that contradicts the explicit teachings of Anderson. The operation element identified by Anderson as a compander is not controlled by at least one transform engine as required in claim 1.

Furthermore, in Figure 2 of Anderson, user volume control 70 and full on gain 72 control the system volume setting but not compander operation and controls 70 and 72 control CCA 32 via the "control network." Figure 2 shows that the control network is "main CCA control" 68 and Anderson describes a current source 148 that converts a voltage into an exponential current where main CCA control 68 is composed of multiple current sources 148, one per control voltage. Anderson col. 33, lines 37-46. Thus controls 70, 72 only set a fixed contribution of CCA 66 gain (the system volume setting) and do not affect the compander operation while compression ratio control 34 and the block 27 output only affect compander operation and not the system volume setting. Therefore, Anderson does not contain a transform engine for "controlling operation of the compander *and* setting the system volume control.

Goldstein does not teach all elements of the claims arranged as they are in the claims. As cited Goldstein discloses the use of a compressor and not a compander. Goldstein's compressor is therefore incapable of expanding dynamic range of an input signal in the manner of a compander. Moreover, ACT 130 (adaptive compression threshold) of Goldstein, which was cited as teaching a transform engine that controls operation of a compander and sets system volume control, merely adjusts a compression threshold and does not affect the system volume control or system volume level. *See, e.g.*, Goldstein, paras. [0066], [0076] and [0138]. Therefore, the rejection of claim 1 should be withdrawn because Goldstein cannot be said to teach or suggest at least one transform engine responsive to the at least one user-set parameter for controlling operation of the compander and setting the system volume control as required in claim 1.

The §103 Rejections

Regarding claims 19 and 20, Fischer does not cure the deficiencies of Cornelisse and does not teach a noise extractor. Rather, Fischer is directed to adaptive beam forming used to minimize microphone unit 10 response in the direction of a noise source in order to *suppress* the noise and *promote* a received speech signal. Fischer, Abstract. Fischer uses *input* signals from the two microphones to *suppress* a noise component of the captured signals. In contrast, claims 19 and 20 require a noise *extractor* that operates to generate a compensation signal from a *reference signal and an environmental signal.* Claim 19 provides the compensation signal to a transform engine that controls at least one operating characteristic of a compander and system volume control; claim 20 requires that a volume control be responsive to the compensation input for establishing an offset to system gain. No combination of Cornelisse and Fischer teaches or renders obvious these elements, structured as they are in the claims. Furthermore, no skilled artisan would be motivated to modify Cornelisse to incorporate Fischer's noise suppressor in any manner that would render obvious the extraction and processing of a noise signal as claimed in the present application. For at least these reasons, the rejections of claims 19 and 20 are improper and should be withdrawn.

The Rejections of the Dependent Claims

Each of claims 2-18 and 21-34 ultimately depend from one of claims 1, 19 or 20. Since these latter claims are allowable, it follows that the dependent claims are allowable for at least the same reasons that the independent claims are allowable. Therefore, the rejections of claims 2-18 and 21-34 should be withdrawn.

New Claims

Applicants have added claims 35-39 to better set forth certain aspects of the invention. Each of claims 35-39 is fully supported in the Specification and Drawings and the new claims introduce no new matter into the Application. Applicants request consideration and allowance of these claims.

CONCLUSION

All objections and rejections having been addressed, and in view of the foregoing, all remaining claims are believed to be in form for allowance, and such action is hereby earnestly solicited. The Examiner is kindly requested to contact the undersigned at the telephone number listed below if any points remain in issue which may be best resolved through a personal or telephone interview. Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,
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